second mail sender 23 each send mail through a US Postal System 25. Under the present system, the mail receiver has no control whatsoever as to which mail he will receive or not receive. Thus the mail recipient must be prepared to deal with mail from anyone including terrorists which may arrive any day at his home mail box 27.

Figure 2 prior art is a flowchart describing the typical office hardcopy mail stream in the US. Similarly to Figure 1, a vast number of potential mail senders exist in the modern worldwide postal system. Some mail sender's are known to the mail recipient many other's are unknown. Under the present system, the mail receiver has no control whatsoever as to which mail he will receive or not receive. Thus a mail recipient 39 must be prepared to deal with mail from anyone including terrorists which may arrive any day at his office mail box 38 courtesy of his office mail distribution system 37.

Figure 3 is a flowchart describing hardcopy mail interception at the home mailbox of the present invention. The present invention provides a mail scan service 49. In this illustration, the mail scan service is intercepting the intended recipient's 55 mail at his home mail box 47. The 49 scans (records a digital image) of the mail which it provides electronically over the internet, thereby enabling the intended recipient to virtually view the mail prior to receiving it. Internet communication channel between 49 and 55 is indicated by a dotted line. The 55 elects to accept or to reject each specific mail article. Rejected mail 51 is discarded by the 49 and accepted mail 53 is routed to the user by the 49. Thus the user of the scanning service receives and personally handles only the mail that he wishes to and discards the unwanted mail without ever having handled it. This reduces potential for exposure to explosives, biological agents, and chemical agents distributed by terrorists.

Figure 4 is a flowchart describing hardcopy mail scanning via a service address. Figure 4 provides an alternate, more efficient, process than Figure 3. A mail receiver 71 officially changes his mailing address to a service address location 63. Thus all mail intended for the recipient goes to the service address for processing. A mail scan service 65 records digital images of the mail which it sends by computer over the internet to an intended mail receiver's computer 71. Internet communication channel between 65 and 71 is indicated by a dotted line. The intended receiver elects which pieces to accept and which to reject. His computer notifies the 65 computer of these elections via the internet. The 65 accordingly discards rejected mail 67 and sends to the intended recipient's home mail box 69 only accepted mail. Thus the user of the scanning service receives and personally handles only the mail that he wishes to and discards the unwanted mail without ever having handled it. This reduces potential for exposure to explosives, biological agents, and chemical agents distributed by terrorists.

Figure 5 is a flowchart describing hardcopy mail scanning of the present invention if performed by the US Postal Service. After the postal service 77 receives the mail from multiple senders, it provides a mail scanning service (digital images of the mail are created). An intended receiver 87 is given access to the digital images via the internet (indicated with dotted line) which interconnects the 87 computer and the 81 computer. Also over the internet, the 87 sends elections to accept or reject each mail article to the 81 computer. The Postal Service then delivers only the accepted mail to a home mailbox 85 and discards the rejected mail. Thus the user of the US Postal scanning service receives and personally handles only the mail that he wishes to and discards the unwanted mail without ever having handled it. The scanning service thus reduces the user's (mail recipient's) potential for exposure to explosives, biological agents, and chemical agents distributed by terrorists.

Figure 6 is a flowchart describing hardcopy mail scanning performed by an office mail processing system. Many buildings use internal mailroom personnel to distribute mail through out the building, the present invention can be used at the building level as well. After the postal service 93 delivers mail to an office mail processing system 95, the office mail service provides a mail scanning service (digital images of the mail are created). An intended receiver 105 is given access to the digital images via the intranet (indicated with dotted line) which interconnects the 97 computer and the 105 computer. Also over the intranet, the 105 sends elections to accept or reject each mail article to the 97 computer. The office mail processing system then delivers only the accepted mail to the 105 and discards the rejected mail. Thus the user of the office mail scanning service receives and personally handles only the mail that he wishes to and discards the unwanted mail without ever having handled it. This reduces potential for exposure to explosives, biological agents, and chemical agents distributed by terrorists.

Figure 7 illustrates the computers interconnected by network. The scanning service or hardcopy mail processing operation 113 receives incoming mail 111. It scans the mail (creates digital images) in a scanning operation 115. Images are stored in a mail database 117. Images from the 117 are served to a mail receiver computer 123 via a scan service computer 119, both computers being interconnected by a network 121. The 123 sends elections to 119 concerning what to do with each mail article. The 119 stores these elections in the 117 and sends processing instructions to the 113. Mail is process according to the 123 instructions including some sent out to the 123 as outgoing hardcopy mail 125.

Figure 8 is a flowchart illustrating hardcopy mail flow integrated with the computers interconnected by network. Hardcopy mail 131 is received by a mail scan service 133 as received

hardcopy mail 135. As its first processing, hardcopy mail is scanned (digital images are created), assigned a barcode number, stored, and its digital image is stored at 137. A computer 139 sends digital images to the mails intended recipient at user computer 143 via a network 141. The 143 computer sends elections back to the 139 computer at the message received box 144 (via the network 141). The 144 computer sends instructions for handling of each mail article according to the 143 elections. Accepted mail 147 is sent through the internal (office or building mail system) and/or external (postal service) system where the hardcopy mail is given to the user hardcopy mail box 149. Mail rejected by 143 is rejected mail 145 and is destroyed. The 143 user can opt for other processing options as well, one such option is to open the mail 151. Opened mail is itself recorded to a digital image 153. This opened mail image is sent to the user at 155. Again the user 143 is given the option to accept or reject via the network connection. The user elects options and the processing service either sends accepted mail 157 or destroys rejected mail 159. Thus the user of the scanning service receives only mail that he elects to receive. This significantly reduces his potential risk to mail delivered terrorist weapons.

Figure 9 illustrates the GUI with an image received by the intended hardcopy recipient. This is a representation of what the scanning service computer sends to the mail recipients computer via the network. A graphical user interface (GUI) 171 contains two basic areas. A first area is the image view area 173. It contains the image of an envelope 175 that was received by the scanning service which digitally recorded its image and sent it over the internet to a user of the scanning service. If the user wants to receive the mail, he uses his curser arrow 183 to click on the accept mail icon 177. The user can also click on a reject mail icon 179 to reject the mail or an open mail icon 181 to further inspect the mail's content. The instructions are sent to the scanning service for execution via the network connect. Thus the user of the scanning service receives only mail that he elects to receive. This significantly reduces his potential risk to mail delivered terrorist weapons.

Conclusions, Ramifications, and Scope

Accordingly, several objects and advantages of my invention are apparent.

Accordingly, several objects and advantages of the present invention are apparent. It is an object of the present invention to provide a means for intended hardcopy mail recipients to select which mail articles they wish to receive and which they wish to discard without their having to physically handle articles. It is an object of the present invention to thereby dramatically reduce an intended mail recipient's potential exposure to terrorist weapons such as explosives, biological agents, and chemical agents. It is an advantage of the present invention that a service is provided to